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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/737,029  
Filing Date: December 16, 2003  
Appellant(s): MUI, DANIEL SAUFU

\_\_\_\_\_  
Darien K. Wallace  
For Appellant

**EXAMINER'S ANSWER**

**MAILED**  
NOV 01 2007  
**GROUP 2600**

This is in response to the appeal brief filed 7/26/2007 appealing from the Office action mailed 2/07/07.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

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6915109	Wouters et al.	07-2005
5963624	Pope	10-1999
5410326	Goldstein	04-1995
6747568	Teskey	6-2004
5671267	August et al.	09-1997

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 13-16, 19, 22, and 24-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Wouters et al. US Patent 6915109.

Regarding claims 13 and 22, Wouters et al. teaches a remote control which includes the system of devices 1 and 2 (figure 1) comprising a receiver receiving a RF modulated remote control signal (col. 4 lines 25-28) and a transmitter transmitting an infrared modulated signal

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generated from the received RF signal (col. 4 lines 28-33). Wouters et al. also teaches the key code corresponding to the key of keypad is transmitted when the key is selected (col. 4 lines 4 lines 48-57).

Regarding claims 14-16, Wouters et al. teaches the key code corresponding to the key of keypad is transmitted when the key is selected (col. 4 lines 4 lines 48-57). A key code corresponding to a second and third key code is therefore transmitted based on the selected key. Wouters et al. teaches fetching the data from memory corresponding to the key code (col. 4 lines 55-58). The data from the memory is inherently store as binary data. The key code therefore comprises binary data.

Regarding claims 19, Wouters et al. teaches a key code generator (3) for generating key codes for controlling different function on various electrical appliances (col. 1 lines 24-26, col. 3 lines 21-35). The key codes for controlling the different devices inherently include a first and second key code. Wouters et al. teaches an antenna (9) for transmitting the key code from the key code generator to a remote control (12) and the remote control 12 transmit the key code to the selected appliances (col. 3 lines 31-34). Wouters et al. teaches the key code receive by the remote control is demodulated, decoded and transmitted to the appliance (col. 4 lines 25-37). The key code is therefore not stored in the memory of the remote control .

Regarding claim 24, Wouters teaches a radio receiver (13) that is a microcontroller for receiving the radio frequency signal (col. 3 lines 31-32).

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Regarding claim 25, Wouters et al. teaches receiving a keystroke indicator signal (5) from a remote control (3) and the key code indicator signal is use by key code generator 8 to generate a key code (col. 3 lines 21-30);

modulating the key code signal unto a carrier and transmitting the key code to the remote control (12) (col. 4 lines 28-33) and the remote control transmit the key code to the electronic device (col. 3 lines 31-34). Wouters et al. teaches the key code receive by the remote control is demodulated, decoded and transmitted to the appliance (col. 4 lines 25-37).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-4, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pope US Patent 5963624 in view of McNair et al. US Patent 5595342.

Regarding claim 1, Pope teaches receiving a keystroke indicator signal which contains an indication of a key on the remote control device 10 that was pressed (col. 2 lines 61-col. 3 line 19), generating a key code (codes for communicating the control function to the appliances)

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within the code generator 12 and transmitting the key codes to the appliances (col. 3 lines 35-40). Pope is however silent on teaching modulating the key code onto a carrier signal. McNair et al. in an art related control system teaches the control signal is modulated and transmitted to the controlled apparatus as a conventional practice (col. 2 lines 61-65).

It would have been obvious to one of ordinary skill in the art to modulate the key code onto a carrier signal in Pope because modulation of the key code enables the key code signal to be transmitted wirelessly to the appliances and this also represents a conventional practice of providing means for wireless transmission from a remote control.

Regarding claim 3, Pope teaches the key code generator 12 transmitting key code signal (control codes) to the consumer devices (col. 3 lines 35-40).

Regarding claim 4, Pope teaches the key code is indicated by low and high (col. 3 lines 45-47) implying the key code signal include ones and zeroes.

Regarding claim 9, Pope teaches the code generated by the code generator 12 is transmitted to the appliances (col. 3 lines 36-40). The code generated by the code generator is not store in the remote control because it is transmitted to the appliances.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pope US Patent 5963624 in view of McNair et al. US Patent 5595342 and further in view of Goldstein US Patent 5410326.

Regarding claim 2, Pope teaches the remote control receiving key code signals (infrared control signal) from a controller (col. 4 lines 52-56) but is silent on teaching the key code generator transmit key codes to the remote control device. Goldstein in an art related

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programmable remote control invention teaches a key code generator in the form of a cable box (cable box is considered a key code generator, see page 3 lines 4-5 of the applicant's specification) transmitting key codes to the remote control (col. 13 lines 50-57) in order to update the remote control with new control codes.

It would have been obvious to one of ordinary skill in the art for the key code generator to transmit the key code to the remote control in Pope in view of McNair et al. because this provides the means for updating the remote control with new codes.

Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pope US Patent 5963624 in view of McNair et al. US Patent 5595342 and further in view of Teskey US Patent 6747568.

Regarding claim 5, Pope teaches generating a key code for controlling the consumer appliances (col. 3 lines 35-40) but is silent on teaching the key code comprises timing information defining the binary number is modulated. Teskey in an art related remote control system teaches the format of the remote control signal having the necessary timing and modulation information (col. 3 line 60-col. 4 line 8).

It would have been obvious to one of ordinary skill in the art for the key code to include comprises timing information defining the binary number is modulated in Pope in view of McNair because the timing information defining the binary number is modulated represent information regarding the format of the remote control signal that enables the decoding and demodulating of the receive key code signals.

Regarding claim 10, Pope teaches generating a key code for controlling the consumer appliances (col. 3 lines 35-40) but is silent on teaching the key code comprises timing



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information defining the binary number (ones and zeroes) is modulated. Teskey in an art related remote control system teaches the format of the remote control signal having the necessary timing and modulation information (col. 3 line 60-col. 4 line 8).

It would have been obvious to one of ordinary skill in the art for the key code to include comprises timing information defining the binary number is modulated in Pope in view of McNair because the timing information defining the binary number is modulated represent information regarding the format of the remote control signal that enables the decoding and demodulating of the receive key code signals.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pope US Patent 5963624 in view of McNair et al. US Patent 5595342 and further in view of August et al. US Patent 5671267.

Regarding claim 6, Pope teaches the use of the remote control to control the functions of the appliances (col. 2 line 61-col. 3 line 22) but is not explicit in teaching transmitting a keystroke indicator signal that cause the appliance to turn on. One skill in the art recognizes that a remote control is generally use in turning an appliance on/off and is further evidenced by August et al. (col. 8 lines 3-5).

It would have been obvious to one of ordinary skill in the art for the remote control to transmit a keystroke signal for turning the appliance on in Pope in view of McNair because Pope suggests the use of the remote control to control the functions of the appliances and one skill in the art recognizes that a remote control is generally use in turning an appliance on/off and is further evidenced by August et al.

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Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pope US Patent 5963624 in view of McNair et al. US Patent 5595342 and further in view of Wouster et al. US Patent 6915109

Regarding claim 7, Pope teaches the remote control receiving key code signals (infrared control signal) from a controller (col. 4 lines 52-56) and the remote control transmits control signal to the appliances (figure 1) but is silent on teaching modulating the key code onto carrier signal that is in the infrared frequency band. Wouters et al. in an art related remote control invention teaches a remote control receiving a RF modulated remote control signal (col. 4 lines 25-28) and a transmitter transmitting an infrared modulated signal generated from the received RF signal (col. 4 lines 28-33).

It would have been obvious to one of ordinary skill in the art to modulate the key code onto carrier signal that is in the infrared frequency band in Pope in view of McNair because infrared signal represents an alternative to radio signal used in the transmission of remote control signal.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pope US Patent 5963624 in view of McNair et al. US Patent 5595342 in view of Wouster et al. US Patent 6915109 and further in view of August et al. US Patent 5671267.

Regarding claim 8, Pope teaches the use of the remote control to control the functions of the appliances (col. 2 line 61-col. 3 line 22) but is not explicit in teaching transmitting a keystroke indicator signal that cause the appliance to turn on. One skill in the art recognizes that

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a remote control is generally use in turning an appliance on/off and is further evidenced by August et al. (col. 8 lines 3-5).

It would have been obvious to one of ordinary skill in the art for the remote control to transmit a keystroke signal for turning the appliance on in Pope in view of McNair in view of Yamaguchi because Pope suggests the use of the remote control to control the functions of the appliances and one skilled in the art recognizes that a remote control is generally use in turning an appliance on/off and is further evidenced by August et al.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wouters et al. US Patent 6915109 in view of Teskey US Patent 6747568.

Regarding claim 18, Wouters et al. teaches the remote control transmit command codes to perform various functions (col. 4 lines 4 lines 48-57). Wouters is silent on teaching the key code comprises timing information defining the binary number is modulated. Teskey in an art related remote control system teaches the format of the remote control signal having the necessary timing and modulation information (col. 3 line 60-col. 4 line 8).

It would have been obvious to one of ordinary skill in the art for the key code to include timing information defining the binary number is modulated in Wouters et al. because the timing information defining the binary number represents information regarding the format of the remote control signal that enables the decoding and demodulating of the receive key code signals.

Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wouters et al. US Patent 6915109 in view of August et al. US Patent 5671267.

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Regarding claims 20-21, Wouters teaches the use of the remote control to control the functions of the appliances (col. 3 lines 31-35) but is not explicit in teaching transmitting a keystroke indicator signal that cause the appliance to turn on. One skill in the art recognizes that a remote control is generally use in turning an appliance on/off and is further evidenced by August et al. (col. 8 lines 3-5).

It would have been obvious to one of ordinary skill in the art for the remote control to transmit a keystroke signal for turning the appliance on in Wouters because Wouters suggests the use of the remote control to control the functions of the appliances and one skill in the art recognizes that a remote control is generally use in turning an appliance on/off and is further evidenced by August et al.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wouters et al. US Patent 6915109 in view of Pope US Patent 5963624.

Regarding claim 23, Wouters teaches transmitting key codes to remote control (see response to claim 13) but is not explicit in teaching the key code is not store on the remote control prior to the remote control receiving the key code. Pope in an art related remote control teaches the remote control receiving control codes updates (col. 4 lines 52-60). The receipt of the code update by the remote control implies that the code was not previously stored in the remote control prior transmitting the updates to the remote controller.

It would have been obvious to one of ordinary skill in the art for the key code is not store on the remote control prior to the remote control receiving the key code because the key codes

transmitted to the remote control is used as a means of programming the remote control with new codes.

#### **(10) Response to Argument**

Appellant argues on page 11 that the reference of Wouters fails to teach a single device with a keypad that both receives a RF signal and transmit an IR signal. It is the examiner position that the claims recites no limitation of a single device, the limitation of a remote control device is only recited in the preamble. The preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Appellant argues on page 11-12 that the system of devices as disclose by the reference of Wouters is insufficient to allege a prima facie case of anticipation. It is the examiner's position that a system and device are not mutually exclusive terms because a device generally comprises a plurality of other devices

Appellant argues on page 13 that the reference of Wouters does not disclose a single key code that corresponds to two separate functions. It is the examiner's position that Wouters teaches the key code corresponding to the key of keypad is transmitted when the key is selected (col. 4 lines 4 lines 48-57) and teaches transmitting an infrared signal to a device such as a VCR to be controlled (col. 3 lines 33-35). When the remote control is used to activate two devices of

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the same kind (e.g. VCR of the same brand name) the same key code is used for separate functions of turning on different electronic consumer devices.

Appellant argues on page 14 that the reference of Wouters does not teach a first binary number of a key code corresponding to a first function as well as a second binary number corresponding to a second function. It is the examiner's position that Wouters teaches fetching the data (key code) from memory corresponding to the tapped key (col. 4 lines 55-58). The data from the memory is inherently store as binary data and the data representative of each key tapped includes a first and second binary number.

Regarding appellant argument on pages 14-15 regarding the microcontroller for receiving the key code, it is the examiner's position that the reference of Wouters teaches a radio receiver (13) that is a microcontroller for receiving the radio frequency signal (col. 3 lines 31-32).

Appellant argues on page 15 that the reference of Wouters does not disclose a code set that includes one key code corresponding to a function of one electronic consumer device and the other code corresponding to the same function of another electronic consumer device. It is the examiner's position that Wouters teaches a key code generator (3) for generating key codes for controlling different function on various electrical appliances (col. 1 lines 24-26, col. 3 lines 21-35). The key codes for controlling the different devices inherently includes a first and second key code e.g. the turning on of two different brand of TV requires two different signals.

Appellant argues on page 17 that the examiner improperly argues that the item labeled 12 in room 2 is the remote control device as taught by the reference of Wouters. It is the examiner's position that in a method claim no weight is given to the structure, it has been held that that to be entitled to weight in a method claim, the recited structure limitations therein must affect the

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method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. Ex parte Pfeiffer, 1962 C.D. 408 (1961).

Appellant argues on page 17 that the reference of Wouters does not disclose a reference numeral 12 in the specification. It is the examiner's position that the reference 12 represents the receiving subsystem of the remote control as claimed in claim 5 of Wouters.

Appellant argues on pages 18-19, that the combination of the references of Pope and McNair does not teach generating a key code within a key code generating device, a keystroke indicator and a key code signal. It is the examiner's position that Pope teaches receiving a keystroke indicator signal which is the RF signal transmitted from the remote control containing an indication of a key on the remote control device 10 that was pressed (col. 2 lines 61-col. 3 line 19). Pope teaches based on the received RF signal, generating a key code (codes for communicating the control function to the appliances) within the code generator 12 and transmitting the key codes to the appliances (col. 3 lines 35-40). The key code generated is the IR signal that is transmitted through IR window 36. The conversion of the RF signal received from the remote control into IR codes (col. 3 lines 36-40) is considered the generation of the key code.

Appellant argues on page 20 that a keystroke indicator signal cannot be interpreted as the same as a key code signal. It is the examiner's position that the key code signal is considered as the RF signal and the key code is the IR signal generated by key code generator 84 (col. 5 lines 2-10) and therefore does not interpret the keystroke indicator signal as the same as a key code signal.

Appellant argues on page 21 argues that McNair does not teach modulating a key code. It is the examiner's position that the reference of McNair is relied upon for teaching the modulating of a wireless transmission from a remote controller (col. 2 lines 61-65).

Appellant argues on page 21 that there is no motivation to combine the reference of McNair with the reference of Pope. It is the examiner's position that Pope teaches the transmission of a wireless signal from a remote control and the reference of McNair provides the teaching on how to transmit a wireless signal from the remote control device to the electronic apparatus to be controlled.

Appellant argues on page 22 that the reference of Pope does not teach not storing a code set in the remote control. It is the examiner's position that the code set is use for generating the IR signal in the base unit (12) (col. 5 lines 5-14) and is therefore clearly not stored in the handheld unit. The limitation of not storing the code set in the remote control is not recited in claims 3-4. The argument relating to claims 3-4 on pages 22-23 is therefore mute.

Appellant argues on pages 23-24 that the reference of Goldstein does not teach transmitting a key code signal from a key code generator to the remote control. It is the examiner's position that Goldstein teaches a code generator provided by a cable box for responding to a request for key code by transmitting the key code to the remote control (col. 13 lines 50-57). The examiner consider the responding to the request for key code by the cable box as the generation of key code and satisfy the claim limitation of a key code generator because the generation of key code is broadly claimed with no specific given to the means of generating the key codes.



Appellant argues on page 25 that the combination of the references of Pope, McNair and Goldstein would result in the code set or the key codes being stored in the remote control. It is the examiner's position that the reference of Goldstein is relied upon for teaching the transmission of key codes to the remote control and the reference of Pope is relied upon for teaching the limitation of not storing the code set in the remote control.

Appellant argues on page 25 that the reference of Pope, McNair, and Tesky teaches generating a key code within a key code generator and the reference of Teskey does not teach the necessary timing and modulation information. It is the examiner's position that Pope teaches receiving a keystroke indicator signal which is the RF signal transmitted from the remote containing an indication of a key on the remote control device 10 that was pressed (col. 2 lines 61-col. 3 line 19). Pope teaches based on the received RF signal generating a key code (codes for communicating the control function to the appliances) within the code generator 12 and transmitting the key codes to the appliances (col. 3 lines 35-40). The reference of Teskey teaches the key code signal includes timing information such as pulse width and the overall signal timing information for describing the digital "1" and "0".

Appellant argues on page 26 that the reference of August does not teach a key stroke signal transmitted from the remote control to turn on the electronic consumer device. It is the examiner's position that the reference of Pope teaches transmitting the key code signal (control code) to the remote control devices (col. 3 lines 36-40) and the reference of August is relied upon for teaching the conventional practice of a remote control transmitting key codes (control codes) for turning on an electrical consumer apparatus (col. 8 lines 3-5).

Regarding Appellant argument on pages 27-28 regarding the rejection of claim 7, it is the examiner's position that the reference of Pope teaches an embodiment in which the remote control receives the key code signal (infrared signal) from a controller (col. 4 lines 52-56) and transmits the control signal to the electronic consumer devices (figure 1). The reference of Wouters is relied upon for teaching a remote control receiving a RF modulated remote control signal (col. 4 lines 25-28) and a transmitter transmitting an infrared modulated signal generated from the received RF signal (col. 4 lines 28-33).

Regarding Appellant argument on pages 27-28 regarding the rejection of claim 8, it is the examiner's position that the August is relied upon for teaching the conventional practice of a remote control transmitting key codes (control codes) for turning on an electrical consumer apparatus (col. 8 lines 3-5).

Appellant argues on page 29 that the reference of Wouters and Teskey fail to disclose a device with a keypad that transmit an IR signal and receive and RF signal. The response for this argument is already stated on page 12.

Regarding appellant argument on page 29 regarding claims 20-21, the response to this argument is already stated on page 13

Appellant argues on page 30 that the remote control of Wouters does not teach RF receiver, IR transmitter and keypad on the same device. The response for this argument is already stated on page 12.

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**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

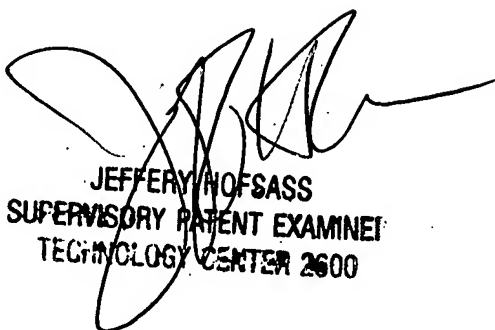
Respectfully submitted,

  
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